

$$26) \quad \cancel{\frac{1}{2}x} - \frac{3y}{-3} = \frac{10 - \frac{1}{2}x}{-3}$$

$$y = -3.33 + .166x$$

$$\cancel{\frac{1}{4}x} + \frac{2y}{2} = \cancel{-2} - \frac{\frac{1}{4}x}{2}$$

cons
ind

incons
dep

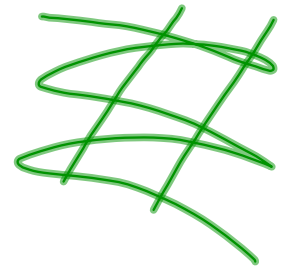
$$y = -1 - .125x$$

Consistent - intersect at least 1 pt.
 ↓
 └─ independent - touches @ 1 pt.
 └─ dependent - infinite points

Inconsistent - don't intersect

$$27) \begin{cases} y = 7.5 + 1.5x \\ y = 7.5 + 1.5x \end{cases}$$

/



infinite
consistant - dependent

$$28) y = \frac{5}{2}x + 4$$

$$y = \frac{5}{2}x - \frac{1}{8}$$

//

no solution. inconsistant

Substitution / Elimination

$$2x + 5y = -5$$

$$x + 3y = 3$$

$$\hookrightarrow x = 3 - 3y$$

$$2(3 - 3y) + 5y = -5$$

$$6 - 6y + 5y = -5$$

$$\begin{array}{r} 6 - y = -5 \\ -6 \quad -6 \end{array}$$

$$\frac{-y}{-1} = \frac{-11}{-1}$$

$$y = 11$$

① isolate x or y
in one equation

② Substitute into
other equation
for isolated
variable

③ Solve for other
variable

④ Plug back into
either equation
and solve for
other variable

$$x = 3 - 3y$$

$$x = 3 - 3(11)$$

$$x = 3 - 33 = -30$$

$$x = -30$$

$$(-30, 11)$$

Try this

$$4x + 3y = -2$$

$$x + 5y = -9$$

$$\begin{array}{r} -5y \quad -5y \\ \hline \end{array}$$

$$4(-9 - 5y) + 3y = -2 \quad x = -9 - 5y$$

$$-36 - 20y + 3y = -2$$

$$-36 - 17y = -2$$

$$\begin{array}{r} +36 \quad +36 \\ \hline \end{array}$$

$$-17y = 34$$

$$\begin{array}{r} -17 \quad -17 \\ \hline \end{array}$$

$$y = -2$$